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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,033	05/13/2005	Marcus Soderlund	9342-51	3566

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EXAMINER

GUZMAN, APRIL S

ART UNIT PAPER NUMBER

2618

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/535,033

Applicant(s)

SODERLUND, MARCUS

Examiner

April S. Guzman

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 05/13/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement submitted on May 13, 2005 has been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. **Claims 1-5, 8-13, and 16** rejected under 35 U.S.C. 102(a) as being anticipated by **Kuivas et al. (U.S. Patent Application Publication # 2004/0212956 A1)**.

Consider **claim 1**, Kuivas et al. show and disclose a portable electronic device (electronic device 10) (Abstract, Figure 1, and [0024]) comprising:

a first part comprising electrical circuits (electronic circuitry in the first section 22) and having an exterior side (read as the side opposite the side that the keypad 14 is on), an interior side (read as the side that the keypad 14 is located on), and top (read as the side opposite of the side closest to the connection 26, therefore the side farthest

Art Unit: 2618

from the connection 26 on the first section 22) and bottom sides (read as the side that is closest to the connection 26 on the first section 22) (Figure 1, Figure 2, Figure 3, Figure 4, and [0024]);

a second part also including comprising electrical circuits (electronic circuitry in the second section 24) and having an exterior side (read as the side opposite the side that the display 16 is on), an interior side (read as the side that the display 16 is on) and top (read as the side opposite of the side closest to the connection 26, therefore the side farthest from the connection 26 on the second section 24 and bottom sides (read as the side that is closest to the connection 26 on the second section 24) (Figure 1, Figure 2, Figure 3, Figure 4, and [0024]);

at least one hinge (Connection 26 which movable connects the second section 24 to the first section 22) ([0024]) connecting the bottom sides of the first and second parts to each other and allowing rotation of one of the first and second parts approximately 360 degrees relative to the other of the first and second parts (One housing section of the device can be turned 360 degrees around another housing section of the device.) (Figure 4, [0008], [0009], and [0036]); and

a first set of flexible electrical conductors (The electrical flex conductor 48 connects electronic circuitry in the first section 22 with electronic circuitry in the second section 24. The flex conductor 48 has two parts; two end portions 76 and a center portion 74.) (Figure 4, [0028], [0035], and [0040]) connected to the first part at the exterior side adjacent the bottom side thereof and to the second part at the interior side adjacent the bottom side thereof (The two end portions 76 of the flex conductor are

Art Unit: 2618

attached to circuitry in the first and second section 22, 24, therefore read as connected to the first section and second section 22, 24. From the configuration shown in Figure 4, it is read as the flex conductor 48 is connected to first and second section 22, 24 in a location either on the exterior or interior side adjacent the bottom side of the first and second part.) ([0040]).

Consider **claim 2, as applied to claim 1 above**, Kuivas et al. show wherein the first set of electrical conductors stretches around the bottom side of the first part when the portable electronic device is folded (The flex conductor extending across the hinge connection and coupling electronic circuitry in the first section of the housing with electronic circuitry in the second section of the housing. The flex conductor 48 has a center portion 74 and two end portions 76. The two end portions 76 of the flex conductor are attached to circuitry in the first and second sections 22, 24 toward the bottom side of the first section 22 and the second section 24. The flex conductor 48 is bendable as the first and second sections 22, 24 move relative to each other in a open or closed, folded position.) (Figure 4, Figure 10, [0009], [0035], and [0040]).

Consider **claim 3, as applied to claim 2 above**, Kuivas et al. show and disclose wherein the first set of electrical conductors stretches around the bottom side of the second part when the first and second parts are rotated approximately 360 degrees relative to each other (The flex conductor extending across the hinge connection and coupling electronic circuitry in the first section of the housing with electronic circuitry in the second section of the housing. The flex conductor 48 has a center portion 74 and two end portions 76. The two end portions 76 of the flex conductor are attached to

Art Unit: 2618

circuitry in the first and second sections 22, 24 toward the bottom side of the first section 22 and the second section 24. The flex conductor 48 is bendable as the first and second sections 22, 24 move relative to each other in a open or closed, folded position. First section 22 of the housing of the device 10 can be turned 360 degrees around the second section 24 of the housing of the device 10 smoothly and synchronized with movement of the hinge frame.) (Figure 4, Figure 10, [0009], [0035], [0036], and [0040]).

Consider **claim 4, as applied to claim 2 above**, Kuivas et al. show wherein the first set of conductors is right angles to the bottom sides of the first and second parts (The two end portions 76 of the flex conductor 48 are attached to electronic circuitry in the first and second sections 22, 24. As shown in Figure 4, the flex conductor 48 connects to the first and second section 22, 24 in a right angle where one axis is the axis that runs in the direction of the two end points 76 of the flex conductor 48 connecting to the first and second section 22, 24 of the housing of the device. The second axis that is orthogonal to the axis mentioned above is the axis that runs from left to right or right to left of the bottom side of the first and second section 22, 24 of housing of the device.) (Figure 4, [0009], [0035], and [0040]).

Consider **claim 5, as applied to claim 2 above**, Kuivas et al. show and disclose wherein the first set of flexible electrical conductors is separate from the hinge structure of the portable electronic device (The connection 26 generally comprises a synchronized rotation, multi-axis hinge 27 and an electrical flex conductor 48, read as

electrical flex conductor separate from connector but comprised within.) (Figure 4, Figure 10, and [0028]).

Consider **claim 8, as applied to claim 1 above**, Kuivas et al. show wherein both the bottom sides of the first and second parts have a rounded shape (From looking at Figure 1, Figure 2, Figure 3, and Figure 4, the bottom sides of the first section 22 and the second section 24 both have a rounded shape and does not appear to be flat for the purpose of one housing section of the device to be rotated 360 degrees around the second housing section of the device smoothly and to be synchronized with movement of the hinge frame.) ([0036]).

Consider **claim 9, as applied to claim 2 above**, Kuivas et al. show and disclose wherein the bottom sides of the first and second parts have at least one groove therein that is configured to receive the first set of flexible electrical conductors (The frame member 42, 44, which are fixed and stationarily attached to the first section 22 and second section 24 of the housing respectively, have slots 78, read as at least one groove, which help mount the frame members 42, 44 over the flex conductor 48.) (Figure 10, and [0041]).

Consider **claim 10, as applied to claim 1 above**, Kuivas et al. show and disclose wherein one of the parts comprises gears connected to its bottom side and the other of the parts is provided with gaps with which the gears mesh (The connection 26 generally comprises a synchronized rotation, multi-axis hinge 27 and an electrical flex conductor wherein the hinge 27 generally comprises a hinge frame 36, two hinge modules or pins 38, synchronizing gears 40, two frame members 42, 44 and a dust

Art Unit: 2618

cover 46. The first frame member 42 is fixed and stationarily attached to the first section 22 of the housing and the second frame member 44 is fixed and stationarily attached to the second section 24 of the housing. The gears 40 are interlockingly connected to each other by their teeth and grooves. The dust cover 46 is preferably located between the gears 40 and the frame members 42, 44, read as attached to first and second section. Therefore gears are read as being comprised in first and second section with the teeth of one gear on one section of housing having an interlocking engagement to grooves of the other gear on the other section of housing.) (Figure 4, [0028], [0029], [0030], and [0031]).

Consider **claim 11, as applied to claim 1 above**, Kuivas et al. show and disclose wherein the at least one hinge (hinge 27) comprises a plate (hinge frame 36) having two sections (The hinge frame 36 has the two pivot sections 66 extending from the opposite side 70), each of the two sections of the plate having an axis of rotation that is displaced in the plane of the plate from the axis of rotation of the other of the two sections (Read as, since two pivot sections 66 are located within the hinge frame 36, the two components have the same axis of rotation) ([0040]), and each of the two sections of the plate having a protrusion on opposite sides in a middle of an area of the section that corresponds to the axis of rotation (Each pivot section 66 protrudes on opposite sides of the opposite side 70 which both has a center channel located in the middle area of the two pivot sections 66 that has the same axis of rotation) ([0040]).

Consider **claim 12, as applied to claim 11 above**, Kuivas et al. show and disclose wherein each of the parts (The first frame member 42 is fixedly and stationarily

Art Unit: 2618

attached to the first section 22 of the housing and the second frame 44 is fixedly and stationarily attached to the second section 24 of the housing.) ([0031]) has a slit configured to receive one of the sections of the plate, and each of the parts further defines cavities on opposite sides of the slit within the interior of the parts configured to receive the protrusions of the sections and to secure the hinge in the parts (The hinge frame 36 includes a slot 68 into the side 70. The slot extends through the pivot sections 66 and connects the two center channels 72 to each other. The flex conductor 48 is inserted into the slot 68 before the frame members 42, 44 are attached to the pivot sections 66, read as the protrusions. The frame members 42, 44 have slots 78 from the mounting apertures 80, read as a cavity, which help to mount the frame members 42, 44 over the flex conductor 48. Once assembled, the frame members 42, 44 block exit of the center portion 74 from the center of the slot 68 to thereby keep the assembly together and secure hinge frame 36 to the first section 22 and the second section 24 of the housing of the device 10.) (Figure 4, Figure 10, and [0041]).

Consider **claim 13, as applied to claim 1 above**, Kuivas et al. disclose wherein the first set of flexible electrical conductors of comprises a flex film (Connection 26 comprises a flex conductor 48, such as a flexible printed circuit, read as a flex film. The flex conductor 48 connects electronic circuitry in the first section 22 with electronic circuitry in the second section 24. The flex conductor 48 extends across the hinge connection.) (Figure 4, [0009], and [0035]).

Consider **claim 16, as applied to claim 1 above**, Kuivas et al. show and disclose wherein the device comprises a cellular phone (The electronic device 10

Art Unit: 2618

generally comprises a mobile communicator, such as a mobile telephone.) ([0002], [0023], and [0024]).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claims 6-7 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kuivas et al. (U.S. Patent Application Publication # 2004/0212956)** in view of **Olodort et al. (U.S. Patent # 6,798,649)**

Consider **claim 6, as applied to claim 2 above**, Kuivas et al. disclose the portable electronic device.

However, Kuivas et al. fail to disclose a second set of flexible electrical conductors connected to the second part at the exterior side adjacent the bottom side thereof and to the first part at the interior side adjacent the bottom side thereof.

In the related art, Olodort et al. show and disclose two groups, first and second groups, of conductive strips which may be fixed on the inner surface of support plate 730, which faces the bottom sides of the two keyboard sections in the unfolded configuration, and a first and second corresponding group of conductive strips which may be attached to the bottom side of the first and second keyboard sections respectively (column 10 lines 50-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Olodort et al. for the purpose of electrically contacting the first and second groups of conductive strips to the first and second keyboard sections thereby allowing for electrical connection of signals between the two keyboard sections.

Consider **claim 7, as applied to claim 6 above**, Olodort et al. further teaches the second set of flexible electrical conductors stretch around the bottom side of the second part when the portable electronic device is folded (The second group of conductive strips on the bottom side of the second keyboard section electrically contacts the second group of conductive strips thereby allowing for electrical connection of signals. A flexible electrical cable may connect each keyboard section to the keyboard controller, which allows for the folding and unfolding.) (column 10 lines 65-67, and column 11 lines 1-15).

Consider **claim 14, as applied to claim 1 above**, Kuivas et al. show and disclose the portable electronic device (electronic device 10) (Abstract, Figure 1, and [0024]) with first set of flexible electrical conductors (The electrical flex conductor 48

Art Unit: 2618

connects electronic circuitry in the first section 22 with electronic circuitry in the second section 24. The flex conductor 48 has two parts; two end portions 76 and a center portion 74.) (Figure 4, [0028], [0035], and [0040]).

However, Kuivas et al. fail to disclose that the first set of flexible electrical conductors comprises a cable having a plurality of wires.

In the related art, Olodort et al. disclose a flexible electrical cable, which allows for the folding and unfolding may connect each sections.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Olodort et al. into the teachings of Kuivas et al. for the purpose of connecting each section which allows for folding and unfolding in order to transmit signals representative of user input, data, control commands, status information, or the like therebetween the two sections.

8. **Claims 15, and 17-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kuivas et al. (U.S. Patent Application Publication # 2004/0212956 A1)**.

Consider **claim 15, as applied to claim 1 above**, Kuivas et al. disclose wherein the first part (first section 22) comprises an image captioning unit on the interior side of the first part (The electronic device 10 could comprise any suitable type of feature including a digital camera feature. The various electronic components of telephone 10 could be located in any one of the housing sections, therefore it is read as the digital camera feature is located on the interior side of the first section 22 when in the closed position.) ([0023] and [0024]), and the second part comprises a display on the interior

side of the second part (Display 16 is connected to the second section 24 of the housing located on the interior side when in the closed position.) ([0024]).

However, Kuivas et al. fail to disclose the image captioning unit having a lens.

Nonetheless, the Examiner takes Official Notice of the fact that it is well known in the art for a digital camera feature to have lens.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the lens as known in the art in the digital camera feature taught by Kuivas et al. for the purpose of viewing an image to be captured by the digital camera.

Consider **claim 17**, Kuivas et al. show and disclose a portable electronic device (electronic device 10) (Abstract, Figure 1, and [0024]) comprising:

a first part comprising electrical circuits (electronic circuitry in the first section 22) and having an exterior side (read as the side opposite the side that the keypad 14 is on), an interior side (read as the side that the keypad 14 is located on), and top (read as the side opposite of the side closest to the connection 26, therefore the side farthest from the connection 26 on the first section 22) and bottom sides (read as the side that is closest to the connection 26 on the first section 22) (Figure 1, Figure 2, Figure 3, Figure 4, and [0024]);

a second part also including comprising electrical circuits (electronic circuitry in the second section 24) and having an exterior side (read as the side opposite the side that the display 16 is on), an interior side (read as the side that the display 16 is on) and top (read as the side opposite of the side closest to the connection 26, therefore the

Art Unit: 2618

side farthest from the connection 26 on the second section 24 and bottom sides (read as the side that is closest to the connection 26 on the second section 24) (Figure 1, Figure 2, Figure 3, Figure 4, and [0024]); and

at least one hinge (Connection 26 which movable connects the second section 24 to the first section 22) ([0024]) connecting the bottom sides of the first and second parts to each other and allowing rotation of one of the first and second parts approximately 360 degrees relative to the other of the first and second parts (One housing section of the device can be turned 360 degrees around another housing section of the device.) (Figure 4, [0008], [0009], and [0036]);

However, Kuivas et al. fail to disclose wherein the first part comprises an image captioning unit having a lens on the interior side of the first part, and the second part comprises a display on the interior side of the second part.

Nonetheless, the Examiner takes Official Notice of the fact that it is well known in the art for a digital camera feature to have lens.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the lens as known in the art in the digital camera feature taught by Kuivas et al. for the purpose of viewing an image to be captured by the digital camera.

Consider **claim 18, as applied to claim 17 above**, Kuivas et al. as modified by Olodort et al. further teaches wherein the hinge allows rotation of one of the first and second parts approximately 360 degrees relative to the other of the first and second parts (Connection 26 which movable connects the second section 24 to the first section

Art Unit: 2618

22. The second section 24 of the housing is adapted to rotate about 360 degrees relative to the first section of the housing.) (Figure 4, [0008], [0009], [0024], and [0036]).

Consider **claim 19, as applied to claim 17 above**, Kuivas et al. as modified by Olodort et al. further teaches wherein a set of flexible electrical conductors are connected between the first part and the second part and electrically connected the electrical circuits of the first and second parts (The flex conductor 48 connects electronic circuitry in the first section 22 with electronic circuitry in the second section 24.) (Figure 4, [0009], and [0035]).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jantschek (U.S. Patent # 5,966,777)

Ko et al. (U.S. Patent # 6,519,812)

Tang (U.S. Patent # 5,987,704)

Goldenberg (U.S. Patent # 5,363,089)

Finke-Anlauff et al. (U.S. Patent Application Publication # 2006/0227102)

Kuivas et al. (U.S. # 6,900,981)

Wang (U.S. Patent Application Publication # 2006/0007648)

Shimano et al. (U.S. Patent Application Publication # 2003/0112590)

Shimano et al. (U.S. Patent Application Publication # 2003/0112589)

Shimano (U.S. Patent Application Publication # 2003/0112588)

Art Unit: 2618

Andersson et al. (U.S. Patent Application Publication # 2006/0034601)

Jung et al. (U.S. Patent Application Publication # 2004/0198474)

Stefansen (U.S. Patent Application Publication # 2005/0239520)

Tracy et al. (U.S. Patent Application Publication # 2005/0079901)

Newman et al. (U.S. Patent # 7,016,712)

Tracy et al. (U.S. Patent # 6,728,557)

Nakamura (U.S. Patent # 6,754,514)

Andersson et al. (U.S. Patent Application Publication # 2005/0261040)

Matsumoto (U.S. Patent Application Publication # 2003/0228847)

10. Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
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Hand-delivered responses should be brought to

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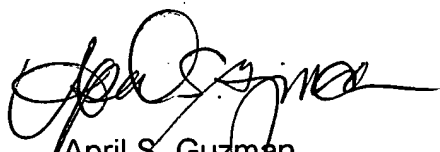
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to April S. Guzman whose telephone number is 571-270-

Art Unit: 2618

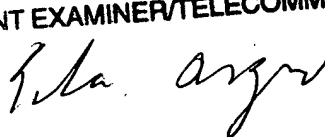
1101. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


April S. Guzman
A.S.G/asg

EDAN ORGAD
PATENT EXAMINER/TELECOMM.

 11/27/08